

In the Claims:

1 A) Claims 1—13, 15—17 and 19—25 remain in their original form.

2 B) Claim 14 is currently amended.

3 C) Claims 18 and 26 are currently cancelled.

4 D) Claims 27—31 are new.

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7 1. (Original) A transaction processing system comprising:

8 a database writer configured to process data in accordance with one or more

9 transactions within the transaction processing system;

10 a transaction monitor for monitoring transactions within the transaction

11 processing system;

12 a log writer for maintaining audit trail data associated with transactions

13 within the transaction processing system; and

14 one or more non-disk persistent memory units associated with the log

15 writer and configured to receive, from the log writer, audit trail data.

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17 2. (Original) The transaction processing system of claim 1, wherein

18 the log writer comprises a primary audit disk process and a backup audit disk

19 process.

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21 3. (Original) The transaction processing system of claim 1, wherein

22 said one or more non-disk persistent memory units comprises a primary non-disk

23 persistent memory unit and a mirror non-disk persistent memory unit.

1 4. (Original) The transaction processing system of claim 1, wherein
2 said one or more non-disk persistent memory units comprises a primary non-disk
3 persistent memory unit and a mirror non-disk persistent memory unit, and wherein
4 the log writer is configured to first write audit trail data to the primary non-disk
5 persistent memory unit and then write the audit trail data to the mirror non-disk
6 persistent memory unit.

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8 5. (Original) The transaction processing system of claim 1, wherein
9 the one or more non-disk persistent memory units comprise a write aside buffer
10 configured to receive the audit trail data, the write aside buffer being configured as
11 a circular buffer.

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13 6. (Original) A transaction processing system comprising:
14 a database writer configured to process data in accordance with one or more
15 transactions within the transaction processing system;
16 a transaction monitor for monitoring transactions within the transaction
17 processing system;
18 a log writer for maintaining audit trail data associated with transactions
19 within the transaction processing system;
20 one or more non-disk persistent memory units associated with the log
21 writer and configured to receive, from the log writer, audit trail data; and
22 one or more audit log disks configured to receive audit trail data that is first
23 received by the one or more non-disk persistent memory units.

1 7. (Original) The system of claim 6, wherein the log writer is
2 configured to cause the audit trail data in the one or more non-disk persistent
3 memory units to be written to the one or more audit log disks when a non-disk
4 persistent memory unit threshold is reached or exceeded.

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6 8. (Original) The system of claim 6, wherein the transaction
7 processing system is configured to commit transactions before associated audit
8 trail data is written to the one or more audit log disks.

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10 9. (Original) The system of claim 6, wherein the transaction
11 processing system is configured to commit transactions after associated audit trail
12 data is received by the one or more non-disk persistent memory units and before
13 the associated audit trail data is written to the one or more audit log disks.

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15 10. (Original) The system of claim 6, wherein the log writer
16 comprises a primary audit disk process and a backup audit disk process.

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18 11. (Original) The system of claim 6, wherein said one or more non-
19 disk persistent memory units comprises a primary non-disk persistent memory unit
20 and a mirror non-disk persistent memory unit.

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22 12. (Original) The system of claim 6, wherein said one or more non-
23 disk persistent memory units comprises a primary non-disk persistent memory unit
24 and a mirror non-disk persistent memory unit, and wherein the log writer is

1 configured to first write audit trail data to the primary non-disk persistent memory
2 unit and then write the audit trail data to the mirror non-disk persistent memory
3 unit.

4 13. (Original) The system of claim 6, wherein the one or more non-
5 disk persistent memory units comprise a write aside buffer configured to receive
6 the audit trail data, the write aside buffer being configured as a circular buffer.

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8 14. (Currently Amended) A method comprising:
9 receiving data associated with transaction-induced state changes, wherein
10 the act of receiving is performed by a log writer comprising primary and backup
11 audit disk processes; and

12 writing the received data to non-disk persistent memory sufficient to
13 commit an associated transaction.

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15 15. (Original) The method of claim 14, wherein the act of writing
16 comprises writing the received data to first and second non-disk persistent
17 memory units, the first non-disk persistent memory unit comprising a primary
18 non-disk persistent memory unit, the second non-disk persistent memory unit
19 comprising a mirror non-disk persistent memory unit.

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21 16. (Original) The method of claim 14, wherein the act of writing
22 comprises writing the received data to first and second non-disk persistent
23 memory units, the first non-disk persistent memory unit comprising a primary
24 non-disk persistent memory unit, the second non-disk persistent memory unit

1 comprising a mirror non-disk persistent memory unit, the act of writing
2 comprising first writing the received data to the primary non-disk persistent
3 memory unit and then writing the received data to the mirror non-disk persistent
4 memory unit.

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6 17. (Original) The method of claim 14, wherein the act of writing
7 comprises writing the received data to first and second non-disk persistent
8 memory units, the first non-disk persistent memory unit comprising a primary
9 non-disk persistent memory unit, the second non-disk persistent memory unit
10 comprising a mirror non-disk persistent memory unit, the act of writing
11 comprising concurrently writing the received data to the primary non-disk
12 persistent memory unit and the mirror non-disk persistent memory unit.

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18. (Cancel)

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17 19. (Original) The method of claim 14 further comprising after
writing the received data to the non-disk persistent memory, writing the
transaction-induced state change data to one or more audit log disks.

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21 20. (Original) The method of claim 14 further comprising after
writing the received data to the non-disk persistent memory, writing the
transaction-induced state change data to one or more audit log disks, wherein the
22 act of writing the transaction-induced state change data to the one or more audit
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1 log disks comprises doing so responsive to a threshold associated with the non-
2 disk persistent memory being reached or exceeded.

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4 21. (Original) A method comprising:

5 maintaining at least two write aside buffers in non-disk persistent memory,
6 a first of the buffers comprising a primary buffer, a second of the buffers
7 comprising a mirror buffer;

8 synchronously flushing audit data associated with one or more transactions
9 to said at least two write aside buffers; and

10 when a predetermined condition is met, writing the audit data in the write
11 aside buffers to one or more audit log disks.

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13 22. (Original) The method of claim 21, wherein the act of
14 maintaining comprises maintaining said buffers as circular buffers.

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16 23. (Original) The method of claim 21, wherein the predetermined
17 condition comprises a threshold condition.

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19 24. (Original) The method of claim 21, wherein said act of
20 synchronously flushing is sufficient to commit an associated transaction.

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22 25. (Original) The method of claim 21, wherein said acts are
23 performed by a transaction processing system that comprises a database writer

1 component, a transaction monitor component and a log writer component, each
2 component being implemented as a primary-backup process pair.

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4 26. (Cancel)

5 27. (New) A method comprising:

6 receiving data associated with transaction-induced state changes; and
7 writing the received data to non-disk persistent memory sufficient to
8 commit an associated transaction, wherein the act of writing comprises writing the
9 received data to first and second non-disk persistent memory units, the first non-
10 disk persistent memory unit comprising a primary non-disk persistent memory
11 unit, the second non-disk persistent memory unit comprising a mirror non-disk
12 persistent memory unit.

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14 28. (New) A method comprising:

15 receiving data associated with transaction-induced state changes; and
16 writing the received data to non-disk persistent memory sufficient to
17 commit an associated transaction, wherein the act of writing comprises writing the
18 received data to first and second non-disk persistent memory units, the first non-
19 disk persistent memory unit comprising a primary non-disk persistent memory
20 unit, the second non-disk persistent memory unit comprising a mirror non-disk
21 persistent memory unit, the act of writing comprising first writing the received
22 data to the primary non-disk persistent memory unit and then writing the received
23 data to the mirror non-disk persistent memory unit.

1 29. (New) A method comprising:
2 receiving data associated with transaction-induced state changes; and
3 writing the received data to non-disk persistent memory sufficient to
4 commit an associated transaction, wherein the act of writing comprises writing the
5 received data to first and second non-disk persistent memory units, the first non-
6 disk persistent memory unit comprising a primary non-disk persistent memory
7 unit, the second non-disk persistent memory unit comprising a mirror non-disk
8 persistent memory unit, the act of writing comprising concurrently writing the
9 received data to the primary non-disk persistent memory unit and the mirror non-
10 disk persistent memory unit.

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12 30. (New) A method comprising:
13 receiving data associated with transaction-induced state changes;
14 writing the received data to non-disk persistent memory sufficient to
15 commit an associated transaction; and
16 after writing the received data to the non-disk persistent memory, writing
17 the transaction-induced state change data to one or more audit log disks.

1 31. (New) A method comprising:
2 receiving data associated with transaction-induced state changes;
3 writing the received data to non-disk persistent memory sufficient to
4 commit an associated transaction; and
5 after writing the received data to the non-disk persistent memory, writing
6 the transaction-induced state change data to one or more audit log disks, wherein
7 the act of writing the transaction-induced state change data to the one or more
8 audit log disks comprises doing so responsive to a threshold associated with the
9 non-disk persistent memory being reached or exceeded.

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